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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,565	12/04/2003	Hiroyuki Nishimori	0229-0784P	5477

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EXAMINER	
JULES, FRANTZ F	

ART UNIT	PAPER NUMBER
3617	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/726,565	HIROYUKI NISHIMORI
	Examiner	Art Unit
	Frantz F. Jules	3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-9,11-13,16 and 18* is/are rejected.

7)☒ Claim(s) *6,10,17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 10 is objected to because of the following informalities:

In claim 10, line 2, the word "the" should be added in front of the phrase "main blocks".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-4, 9, 11-13, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Daisei et al (JP 06255316 A).

Claims 1, 3-4, 9, 11-13, 18

Daisei et al discloses an ATV radial tire of a block pattern in which a plurality of blocks (2b, 2c) are disposed on a tread surf ace at distances from one another, wherein said blocks include chamfered blocks as shown in figs. 1-2, said chamfered blocks including a notch identified by 5b which comprises an inclined surface obtained by chamfering a corner between an upper surface of the block and a wall surface of the block on an outer side edge of the block which is directed outward of a vehicle when the tire is mounted on the vehicle, see abstract section. The chamfer block occupying 50 to 100% of the total number of blocks;

wherein a height said notch radial direction is 50% of height H of the block of said chamfered block as disclosed in the abstract in accordance with claim 3;

Wherein said chamfered blocks occupy 50 to 100% of the total number of blocks in accordance with claim 4;

Wherein and axial the blocks are defined by grooves in the circumferential and axial directions of the tire in accordance with claim 11;

Wherein the chamfered blocks have only one notch in accordance with claim 12;

Wherein the chamfered blocks have a shape which is substantially rectangular, trapezoidal, substantially pentagonal, or elliptical when viewed from above as show in the drawings in accordance with claim 13;

Wherein the ratio of the length of the chamfered blocks in the axial direction to the length of the chamfered blocks in the circumferential direction is within the range of 2.0 to 4.0 as shown in fig. 3 and in accordance with claims 14-15;

Wherein the height h is 40 to 50% or 25 to 50% of the height H of the block of said chamfered block as shown in fig. 3 and in accordance with claim 18.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

5. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daisei et al (JP 06255316 A).

Claims 2 and 16

Regarding using an angle of the notch of 30 to 60 degrees on the upper surface of the block and a height of the notch in its radial direction that is 25 to 50% of a height of the block as recited in claims 2-3, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daisei et alo to include the use of an angle of the notch of 30 to 60 degrees on the upper surface of the block and a height of the notch in its radial direction that is 25 to 50% of a height of the block in his advantageous system, as tire block design is a common and everyday occurrence throughout the vehicle tire design art and the specific use of an angle of the notch of 30 to 60 degrees on the upper surface of the block and a height of the notch in its radial direction that is 25 to 50% of a height of the block would have been an obvious matter of design expediency depending upon such factors as the loading to be carried by the tire, the yield strength of the rubber or elastomer material, the amount of stability one is targeted in the tire for curve negotiation; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the tire which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

6. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daisei et al.

Claims 7-8

Regarding using a land ratio of an inner side of the tire equator which is greater than that of a land ration of an outer side of the vehicle or a land ratio of the inner side of the vehicle from the tire equator which is 1.1 to 1.5 times the land ration of the outer side of the vehicle as recited in claims 2-3, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daisei et al to include the use of a land ratio of an inner side of the tire equator which is greater than that of a land ration of an outer side of the vehicle or a land ratio of the inner side of the vehicle from the tire equator which is 1.1 to 1.5 times the land ration of the outer side of the vehicle in his advantageous tire, as tire aspect ratio design is a common and everyday occurrence throughout the vehicle tire design art and the specific use of a land ratio of an inner side of the tire equator which is greater than that of a land ration of an outer side of the vehicle or a land ratio of the inner side of the vehicle from the tire equator which is 1.1 to 1.5 times the land ration of the outer side of the vehicle would have been an obvious matter of design expediency depending upon such factors as the loading to be carried by the tire, the yield strength of the rubber or elastomer material, the amount of stability one is targeted in the tire for curve negotiation; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the tire which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

7. Claims 5, 14-15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daisei et al (JP 06255316 A) in view of Caretta et al (US 6,328,084 B1).

Claim 5

Daisei et al teach all the limitations of claim 5 except for a radial tire comprising blocks extending laterally long having inner and outer side portion joined by a connection portion which extends obliquely in the circumferential direction of the tire. The general concept of providing a tire block "that extends laterally long having inner and outer side portion joined by a connection portion which extends obliquely in the circumferential direction of the tire" in a tire is well known in the art as illustrated by Caretta et al which dsclose the teaching of a block "that extends laterally long having inner and outer side portion joined by a connection portion which extends obliquely in the circumferential direction of the tire", see fig. 1, block to the left of reference No. 8a. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daisei et al to include the se of "blocks extending laterally long having inner and outer side portion joined by a connection portion which extends obliquely in the circumferential direction of the tire" in his advantageous tire as taught by Caretta et al in order to provide for increase lateral roll capability in the tire.

Claims 14-15 and 19-20

Regarding using a ratio of the length of the chamfered blocks in the axial direction to the length of the chamfered blocks in the circumferential direction within the range of 2.0 to 4.0 and a height h of the notch in its radial direction 25 to 50 % of a height H of the chamfered block as recited in claims 14-15 and 19-20, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daisei et al to include the use of "a ratio of the length of the chamfered blocks in the axial direction to the

length of the chamfered blocks in the circumferential direction within the range of 2.0 to 4.0 and a height h of the notch in its radial direction 25 to 50 % of a height H of the chamfered block" in his advantageous tire, as tire block aspect ratio design is a common and everyday occurrence throughout the vehicle tire design art and the specific use of "a ratio of the length of the chamfered blocks in the axial direction to the length of the chamfered blocks in the circumferential direction within the range of 2.0 to 4.0 and a height h of the notch in its radial direction 25 to 50 % of a height H of the block of the chamfered block" would have been an obvious matter of design expediency depending upon such factors as the loading to be carried by the tire, the yield strength of the rubber or elastomer material, the amount of stability one is targeted in the tire for curve negotiation; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the tire which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria

Allowable Subject Matter

8. Claims 6, 10 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed 09/16/2004 have been fully considered but they are moot in view of the new grounds of rejection.

Applicant's argument regarding the failure of the Takahashi reference to disclose a tire having blocks on the outside surface forces the withdrawal of the rejection made in the previous office action.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules
Examiner
Art Unit 3617

FFJ

FRANTZ F. JULES
PRIMARY EXAMINER

November 2, 2004